Safety Data Sheet

SDS ID: Stock Code A-5

Revision date: December 11, 2014

Section 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

A-5 Thead Sealant Product name:

Synonyms: None

Chemical family: Pipe Thread Hydrocarbon Mixture

Producer: Arrow Adhesives Company

> 5457 Spalding Drive Norcross, GA 30092 www.arrowadhesives.com

770-448-9058 Available during normal business hours Telephone:

Emergency: 770-448-9058 Available during normal business hours

Section 2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Harmful if swallowed. Prolonged or repeated skin contact may cause drying, cracking, or irritation. High vapor concentrations may cause drowsiness and result in irritation of the eyes, nose, and throat and central nervous system (CNS) depression.

GHS Hazard and precautionary statements

WARNING — Serious Eye Irritation (category 2A), H319

Skin Irritation (category 2), H315 Acute oral toxicity (category 4), H302 Acute inhalation toxicity (category 4), H332

May cause drowsiness or dizziness (category 3), H336

Precautionary Statements

P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking. P271: Use only outdoors or in a well-ventilated area. P240: Ground/bond container and receiving equipment. P261: Avoid breathing vapors. P264: Wash skin thoroughly after handling. P280: Wear protective gloves and eye protection. P303 + P361:IF ON SKIN, immediately remove all contaminated clothing and wash before reuse. P353: Rinse skin with water/shower. P305 + P351: IF IN EYES, Remove contact lenses if present and easy to do so, rinse with water for several minutes. P337 + P313: If eye or skin irritation persists – get medical advice/attention. P403 + P223: Store in a cool, well-ventilated place. Keep container tightly closed.

Inhalation: May cause irritation to mucous membranes and upper respiratory tract. In high

> concentrations, vapors and aerosol mists have a narcotic effect and may cause headache, central nervous system depression, fatique, dizziness, and

nausea. Severe overexposure may cause red blood cell damage.

Chronic: Repeated or prolonged exposure may result in blood, liver, or kidney damage. See Section 11 (Toxicological Information) for additional information.

Ingestion: May cause irritation of the digestive tract, stomach pain, nausea, and vomiting.



Skin contact: May be absorbed through the skin during prolonged or repeated contact,

causing irritation, dermatitis, weakness, headache and nausea.

Eye contact: Exposure to vapors or liquid may cause eye irritation.

Carcinogenic: The IARC and ACGIH designate Ethylene glycol butyl ether (2-Butoxy-

ethanol) and Isopropyl alcohol (2-Propanol) as category 3 – confirmed animal carcinogen with unknown relevance to humans. The ACGIH designates Ethylene glycol butyl ether (2-Butoxyethanol) as category A3– confirmed

animal carcinogen with unknown relevance to humans.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

Material information:

Name	CAS No.	Weight %
Ethylene glycol butyl ether Synonym: 2-Butoxyethanol	111-76-2	12-17
Isopropyl alcohol Synonym: 2-Propanol	67-63-0	10-15

^{*}Note: The above weight percentages are represented in ranges as estimates. Due to variation among production batches, component percentages may vary.

Section 4. FIRST AID MEASURES

Inhalation: Move exposed persons to fresh air. If the person is not breathing or breathing

is irregular, provide artificial respiration or oxygen by trained personnel. Seek

medical attention.

Skin contact: Quickly remove contaminated clothing and shoes. Wash affected skin with

soap and water. Get medical attention if symptoms occur. Wash contaminated

clothing before reuse.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious

person. If conscious and alert, rinse the mouth with water. Call a physician or

poison control center immediately.

Eye contact: Check for and remove any contact lenses. Immediately consult physician after

flushing eyes with tepid water for 15 minutes.

Section 5. FIREFIGHTING MEASURES

Suitable extinguishing media:

Small fires — Class B fire-extinguishing media including water spray, foam, CO₂ or dry powder. Do not use a water stream, as this will spread

the fire.

Specific hazards: Fire or intense heat may cause violent rupture of product containers.

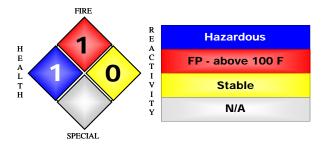
Vapors may form explosive mixtures with air. Application of extinguishing media to hot surfaces requires special precautions. During emergency conditions, overexposure to decomposition products including carbon oxides may cause a health hazard. Symptoms may not be immediately

apparent.

Special protective equipment for firefighters: Full protective equipment including self-contained breathing apparatus should be used. Do not allow run-off from fire-fighting to enter drains or water courses.

NFPA rating: HMIS rating:

Health: 1 1
Flammability: 1 1
Instability/reactivity: 0 0
Other: N/A H (PPE)



Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Immediately contact emergency personnel. Evacuate any potentially affected area and isolate personnel from entry. Ventilate closed spaces before entering them. Vapor can collect in lower areas.
Large Spill:	Personnel must have appropriate training, per Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120. Do not touch damaged containers or spilled material unless wearing appropriate protective equipment (Section 8).
Methods for Containment and Clean up	Shut off source if possible and if safe. Eliminate all ignition sources. Prevent entry into waterways, sewers, basements or confined areas. Advise applicable authorities if material has entered sewers or water courses.

Section 7. HANDLING AND STORAGE

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Handling:	Use with adequate ventilation. Keep containers closed when not in use. Always open containers slowly to allow any excess pressure to vent. Avoid breathing vapors. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling. Launder soiled clothing thoroughly before re-use.		
Storage:	Keep all containers tightly closed when not in use. Store out of direct sunlight and on an impermeable floor. Do not store with incompatible materials. See Section 10, Stability and Reactivity.		

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

Name	CAS No.	ACGIH® TLV® Exposure Limits:	Federal OSHA PELs	OSHA PELs 1989 ^C
Ethylene glycol butyl ether Synonym: 2-Butoxyethanol	111-76-2	20 ppm ^A	50 ppm ^A	25 ppm ^A
Isopropyl alcohol Synonym: 2-Propanol	67-63-0	200 ppm ^A 400 ppm ^B	400 ppm ^A	400 ppm ^A 500 ppm ^B

All exposure limits listed are 8-hour time weighted average (TWA) — except where noted otherwise.

Engineering measures:

Local exhaust ventilation is preferable. General ventilation is acceptable if exposure to materials in this section is maintained below applicable exposure limits.

^A Time Weighted Average (TWA) is an average exposure over the course of an 8-hour work shift.

^B A Short Term Exposure Limit TWA over the course of 15 minutes.

PEL — Permissible Exposure Limit is the maximum 8-hour TWA concentration of a chemical that a worker may be exposed to under Occupational Safety and Health Administration (OSHA) regulations.

^C Federal OSHA 1989 PELs were vacated but are in use and enforced by many state OSHA plans.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection: When engineering controls are not sufficient to reduce exposure

to levels below applicable exposure limits, seek professional advice prior to respirator selection and use. For concentrations less than 10 times the exposure limits, wear a properly fitted NIOSH/ MSHA-approved respirator with organic vapor cartridges.

Skin and body protection: Wear impervious clothing and gloves to prevent contact. Use the

manufacturer's degradation and permeation data for protective

material selection.

Eye protection: Wear safety spectacles with unperforated sideshields, or goggles. **Hygiene measures:** Avoid repeated or prolonged skin exposure. Wash hands before

eating, drinking, smoking, or using toilet facilities. Promptly remove contaminated clothing and launder before reuse.

Other precautions: Intentional misuse by deliberately concentrating and inhaling the

contents can be harmful or fatal.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Yellow paste

Physical state (solid/liquid/gas): Paste Substance type (pure/mixture): Mixture Color: Yellow Odor: Mild odor Molecular weight: Not Available Not Applicable :Ha Boiling point/range (5-95%): Not Available Melting point/range: Not Available **Decomposition temperature:** Not Available

Specific gravity: 1.41

Vapor density: (AIR = 1) < 1

Vapor pressure: 0.88 mm Hg at 68°F

Evaporation rate (Butyl acetate= 1): 0.6

Flash point, method used: Above 200 °F; UN test N.1

Water solubility: Slight

VOC Content: 310 grams/liter (SCAQMD Rule 1168 Test Method316A)

Auto-ignition temperature: 921°F; 494°C

Flammable limits in air — lower (%): 1.1 Flammable limits in air — upper (%): 12.7

Section 10. STABILITY AND REACTIVITY

Reactivity: No data available

Stability: Stable under recommended storage conditions.

Possibly hazardous reactions: Vapors may form an explosive mixture with air

Conditions to avoid: Heat, flames, sparks, temperature extremes, and

direct sunlight.

Incompatible Materials: Strong oxides, chlorine, acids, alkalies, peroxides.

Hazardous decomposition products: By fire, Carbon dioxide, Carbon monoxide

Polymerization: Will not occur.

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Section 11. TOXICOLOGICAL INFORMATION

Acute toxicity: Excessive exposure leads to depression of the central nervous system. Causes eye irritation, moderate skin irritation.

Product information:

Name	CAS No.	Inhalation:	Dermal:	Oral:
Ethylene glycol butyl ether Synonym: 2-Butoxyethanol	111-76-2	LC ₅₀ (Rat): ~700 ppm, 7 hours; LC ₅₀ (Guinea pig): ~932 ppm, 4 hours;	LD ₅₀ (Rat) >2,000 mg/kg LD ₅₀ (Guinea pig) >2,000 mg/kg	Acute LD ₅₀ (Rat):1,746 mg/kg Acute LD ₅₀ (Guinea pig):1,414 mg/kg
Isopropyl alcohol Synonym: 2-Propanol	67-63-0	LC ₅₀ (Rat): 16,000 ppm, 8 hours	LD ₅₀ (Rabbit) 12,800 mg/kg	LD ₅₀ (Rat) 5,000 to 5,045 mg/kg

 LC_{50} — The concentration of the chemical in air that kills 50% of the test animals in a given time (usually four hours).

Chronic toxicity: The IARC and ACGIH designates Ethylene glycol butyl ether (2-Butoxyethanol) and Isopropyl alcohol (2-Propanol) as category 3 – confirmed animal carcinogen with unknown relevance to humans. Repeated or prolonged exposure in excess of exposure limits in Section 8 may cause damage to the lungs, liver, blood, and kidney.

Sensitization: Not known to cause sensitization in humans.

Section 12. ECOLOGICAL INFORMATION

Ecotoxicity effects: LC₅₀ Harlequinfish, Red rasbora 96-hour 4,200 mg/l.

LC₅₀ Fathead minnow 96-hour 9,640 to 10,000 mg/l.

EC₅₀ Water flea 48-hour 1,550 mg/l.

Persistence The estimated half-life (2-Butoxyethanol) in groundwater ranges from 14

days to 8 weeks; and in soil 7 days to 4 weeks.

Degradability: Expected to be readily biodegradable.

Section 13. DISPOSAL CONSIDERATIONS

Cleanup This product is not a hazardous waste as defined under RCRA 40 CFR **considerations:** 261. Do not incinerate a closed container. Disposal of this material must

be done in accordance with federal, state and/or local regulations. The material destined for disposal must be characterized properly and may differ from the product described in this SDS if mixed with other wastes.

Section 14. TRANSPORT INFORMATION

Please refer to DOT regulation 49 CFR 172.101:

Transport information: This material is not regulated under DOT when transported via

U.S. commerce routes: and IATA, and IMO via international routes

Hazardous Materials Description: (DOT and IATA):

UN/identification no.:
Proper shipping name:
Hazard class:
Packing group:
DOT reportable quantity (lbs.):
Not Applicable
Not Applicable
Not Applicable

Section 15. REGULATORY INFORMATION

U.S. federal regulatory information:

U.S. RCRA (40 CFR 261)

This product is not a hazardous waste as defined under RCRA 40 CFR 261.

State and community right-to-know regulations:

The following component(s) of this material are identified on the regulatory lists below:

U.S. TSCA Chemical inventory Section 8(b)

OSHA — This product is determined to be hazardous as defined in the OSHA Hazard Communications Standard (29 CFR 1910.1200)

CERCLA Sections 102a/103 (40 FR 302.4):

No ingredients are listed.

Some Components of this product are listed in the following sections of **SARA**:

SARA Title III Section 302 — N/A

SARA Title III Section 304 — N/A

SARA Title III Section 313 — Ethylene glycol butyl ether (2-Butoxyethanol) 1% reporting threshold

Isopropyl alcohol (2-Propanol) 100 % reporting threshold

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21)

Acute health hazard: Yes
Chronic health hazard: Yes
Fire hazard: No
Reactive Hazard: No
Pressure Hazard: No

California Proposition 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

WHMIS (Canada)

Class D-2B: Material causing other toxic effects

NOTE: User must consult with applicable state and local agencies for special specifics, determinations or compliance obligations regarding this product.

Section 16. OTHER INFORMATION

Standards and Certification Listings:

The information and recommendations contained herein are based upon tests, data, and information resources believed to be reliable. However, Arrow Adhesives Company and its related operations or divisions do not guarantee the accuracy or completeness, nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of goods, the merchantability of the goods or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage may be required. Arrow Adhesives assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of this data. No warranty against infringement of any patent, copyright or trademark is made or implied.